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PACIFIC TELESIS
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January 9, 1994

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
Mail Stop 1170
1919 M Street, N.W., Room 222
Washington, DC 20554

Dear Mr. Caton:

RE: CC Docket 94-102

On behalf of ***Pacific Bell, Nevada Bell, and Pacific Bell Mobile Services***, please find enclosed an original and six copies of its *"Comments"* in the above proceeding.

Please stamp and return the provided copy to confirm your receipt. Please contact me should you have any questions or require additional information concerning this matter.

Sincerely,

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List A B C D E

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of Revision of the Commission's rules to ensure compatibility with enhanced 911 emergency calling systems	CC Docket No. 94-102 RM-8143

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COMMENTS OF PACIFIC BELL, NEVADA BELL AND PACIFIC BELL MOBILE SERVICES

Pacific Bell, Nevada Bell and Pacific Bell Mobile Services hereby comment on the Notice of Proposed Rulemaking in the above-captioned proceeding relating to the compatibility of PBX equipment and wireless services with 911 systems.[1]

I. AMENDMENT OF PART 68 RULES TO REQUIRE COMPATIBILITY OF PBX EQUIPMENT WITH ENHANCED 911 SYSTEMS.

The Commission requests comment on its proposed rules that amend Part 68 to require compatibility of PBX equipment and other dispersed private telephone systems with enhanced 911 systems.[2] The Commission also requests

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[1] In the Matter of Revision of the Commission's rules to ensure compatibility with enhanced 911 emergency calling systems, CC Docket 94-102, Notice of Proposed Rulemaking, released October 19, 1994 ("NPRM").

[2] NPRM, para. 20.

comment on the kind of local exchange company ("LEC") services that are essential to the compatibility of enhanced 911 for PBX equipment.[3]

We strongly support the Commission's proposed rule which will assist in ensuring that emergency response personnel get to the correct private station location as soon as possible. In California, we have already taken steps to provide the necessary changes in our network to support this rule. By the end of 1995, we project that we will be able to offer California customers using private switches the ability to add their telephone numbers and associated location information to the Pacific Bell E9-1-1 database for display at the public safety agency point ("PSAP").

II. COMPATIBILITY OF WIRELESS SERVICES WITH ENHANCED 911.

The Commission requests comment on a variety of issues associated with providing wireless subscribers with enhanced 911.[4] We share the Commission's desire to provide mobile customers with the same level of access to 911 emergency services as is available to wireline customers. We agree that should be the goal of this rulemaking.

It is in the public interest for wireline and wireless customers to have equivalent access to emergency services. However, as the Commission knows, there are some difficult technical issues because technology has not yet been developed to support complete parity between wireline and wireless access to 911.

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[3] Id. at para. 29.

[4] Id. at paras. 32-55.

Consequently, the Commission must provide an appropriate amount of time for the industry to work out the technical issues prior to imposing strict requirements.

A. 911 Availability.

The Commission proposes that mobile customers have the ability to reach emergency services from any service initialized handset in a home service area or a subscribed-to roamed service area by dialing 911[5] and that this dialing feature be made available one year after the effective date of the order in this proceeding. We agree. However, there is a cost issue that the Commission must address. Currently, in California subscribers who fail to pay their bills have their service reduced to the ability to reach emergency services only. This service is subsidized by the State of California. In the wireless area, there may be a great temptation to register for the service and to use it only for emergency calls. If wireless carriers must provide even non-paying customers with access to 911, they will be unable to cover their costs. We urge the Commission to consider this issue in its rulemaking. For example, one alternative would be to create a national fund subsidized by wireless equipment sales to defray the cost to carriers.

B. Grade of Service.

With respect to grade of service, the Commission's initial conclusion is that federal standards are not warranted at this time.[6] We agree. Performance

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[5] Id. at para. 41.

[6] Id. at para. 42.

standards for 911 have traditionally been the subject of state jurisdiction. There is no evidence that the states have failed to mandate appropriate standards.

C. 911 Call Priority.

The Commission proposes that one year after the effective date of the order, originating 911 calls must be assigned priority over non-emergency service calls.[7] The NPRM states that this priority would be assigned at the handset.[8] The most appropriate place to assign priority is at the first point of switching in the network. The role of a handset is to obtain an air interface. To require additional functionality would unnecessarily increase its cost, with low return in consumer benefit. Moreover, there are approximately 30 million cellular handsets in use that would require retrofitting. The Commission should consider a network based solution prior to setting any effective date.

D. User Location Information.

The Commission has established a timetable with respect to user location information. One year after the effective date of the order in this proceeding, wireless service providers would be required to design their systems so that the location of the base station or cell receiving the 911 call from a mobile unit is relayed to the PSAP.[9] In addition, if the base station or cell site employs a

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[7] Id. at para. 44.

[8] Id.

[9] Id. at para. 49.

sectored antenna, the information relayed to the PSAP would have to indicate the sector that received the call.

Technology is available to support this requirement. However, we recommend that the Commission allow wireless providers 18 months rather than 12 months to put in place a system to provide this information. Many wireless services such as PCS are still being designed. Eighteen months is a typical time frame in the telecommunications industry for the development and deployment of a new feature or function. Given the nascent stage of some wireless services, 18 months will ensure that appropriate development and testing can take place.

In the next stage, the Commission proposes that three years after the effective date of the order, the information provided to the PSAP must include an estimate of the approximate location and the distance of the mobile unit from the receiving base station or cell site, calculated on the basis of the received signal strength or by some other method.[10] There is no accuracy requirement. Thus, the information given to the PSAP may be of little value. Moreover, it may make finding a user location even more difficult if it conveys a false sense of accuracy. We recommend that the Commission omit this phase entirely.

The third phase sets a very ambitious requirement. Five years from the effective date of an order in this proceeding mobile operators will be required to provide information that would locate the mobile station in a 3-dimensional

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[10] Id. at para. 50.

environment within a radius of no more than 125 meters.[11] Technology does not yet exist to send 3-dimensional information of that level of accuracy in certain environments. Consequently, the 5-year date is inappropriate. The industry has a great deal of work to do in this area. Assuming a technology is developed in the next few years, specifications would need to be developed and agreed upon in the industry. While we support the Commission's goal of achieving greater and greater accuracy in user location information with the passage of time, we recommend that the Commission defer any setting of a deadline for compliance with stage three until technology has progressed. Public safety will not be harmed by such a deferral. The increasingly competitive nature of wireless services will drive technology development as competitors attempt to bring a safety edge to their service.

E. Re-ring/Call Back.

The Commission proposes that within three years of the effective date of an order in this proceeding that wireless systems must provide the PSAP attendant with the capability to call back the 911 caller if the call is disconnected.[12] We support this requirement and we urge the Commission to retain its requirement as to the capability of the PSAP to ring back the caller and not specify the method. As long as the PSAP attendant has access to the caller's number, the Commission's goal is achieved.

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[11] Id. at para. 51.

[12] Id. at para. 52.

F. Features and Common Channel Signaling.

The Commission requests comment on whether the following information which is currently available from wireline calls should also be available for wireless calls.[13]

⇒ call back number and the mobile transmitter subscriber's name
⇒ location of call origination
⇒ class of service
⇒ base station providers' name and telephone number
⇒ priority of the caller, e.g., school, hospital
⇒ routing information to direct the call to the proper PSAP
⇒ transfer number, i.e., separate numbers to allow the transfer of calls to police, fire, and ambulance services.

In California, because of privacy concerns, the subscriber's name is not transmitted. The priority of the caller is also not utilized in California. We question how valuable this would be in a wireless environment. In a wireline environment, calls from a hospital location will always be from that location. However, in a wireless environment, a mobile unit associated with a hospital may be outside of a hospital when the call is made and may not be entitled to priority treatment. With respect to the other items listed above, we agree that these features are appropriate to enhanced 911 services associated with wireless services.

The Commission also requests comment on its proposal that common channel signaling capabilities be implemented within three years of the effective

[13] Id. at para. 53.

date of an order in this proceeding.[14] We do not believe that an architecture should be mandated at this time. The Commission should specify the desired functionality but permit the industry the flexibility to design the architecture to achieve the required functions.

G. Access to Text Telephone Devices.

The Commission proposes that within a year of the effective date of the order adopted in this proceeding, radio services must be capable of permitting access by individuals with speech and hearing disabilities through means other than mobile radio handsets, e.g., through use of a TTY device.[15] We support this requirement.

H. Compatibility With Network Services.

Finally, the Commission asks for comment on the fact that in private networks a "9" must be dialed prior to dialing 911.[16] The Commission also notes that some telephone companies do not provide priority for 911 calls in accessing the central office switch prior to being sent to the 911 tandem.[17] With respect to the former, this issue should be addressed in an industry forum. At this point, we are unaware of any way technically to bypass the need to dial 9 to exit a private system. With regard to the latter, no requirements exist today for wireline 911.

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[14] Id.

[15] Id. at para. 54.

[16] Id. at para. 58.

[17] Id.

However, in California as soon as 911 calls reach the switch, they enter a private network. This network design processes 911 calls in a very efficient manner.

III. CONCLUSION.

We share the Commission's desire to see that callers from PBX systems and wireless systems have the same access to 911 as other callers. With respect to PBX and other private switches, the technology exists now to relay the necessary information to the PSAP. With respect to wireless, as noted, some level of access to 911 can be provided now. However, there are still difficult technical issues to be overcome to provide the same level of 911 service for wireless systems, as is provided in wireline systems. The Commission should encourage the wireless industry to close this gap in service level, without mandating a specific architecture. In particular, the Commission should refrain from setting a definite

timetable for 3-dimensional user location information until technology can support the transfer of such information accurately to the PSAP.

Respectfully submitted,

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